

localities given on a few of Brown's labels, which read "Mexico, Toluca (13.5 km ESE; San Mateo)". Hence, the occurrence of Slender-billed Grackles in the Lerma marshes is well established (Dickerman 1965, Hardy 1967).

However, Dickerman (1965) went on to argue that the species never occurred in the Valley of Mexico, and that in fact no grackle had occurred there until the 1950s, when a population of Great-tailed Grackles *Q. mexicanus* was established in Xochimilco. Nevertheless, the marsh habitats in the Valley of Mexico were of impressive dimensions. In 1520, Hernando Cortés described his first view of the valley, in the vicinity of Ixtapalapa, as follows (Morris 1928):

There are trees and flowering shrubs, and with the lake there are innumerable fish and birds, such as wild duck, wigeon, and other waterfowl, and in such number that they almost cover the surface of the water.

Descriptions provided by several other sixteenth century visitors to the Valley of Mexico (e.g. Gage 1980) support Cortés' view of its immense marshes. After 300 years of European presence, however, in the early 1800s, the valley was described by Mme. Calderón de la Barca (1987; translation mine) as follows:

The scenery on this side of Mexico is arid and flat, and where the waters of the Lagunas, covered with their gay canoes, once surrounded the city, forming canals through its streets, we now see melancholy marshy lands, little enlivened by great flights of wild duck and waterfowl.

Clearly, these marshes would originally have constituted ideal habitat for Slender-billed Grackles, much as in the case of the Nicaraguan Grackle *Q. nicaraguensis* and Lake Nicaragua, but were on their way to extinction by the mid-nineteenth century.

The type locality provided by Swainson (1827) indicates that the type material was indeed taken in the Valley of Mexico. In the same contribution, Swainson reported on 65 species taken in Mexico, at sites including "near Vera Cruz", "Table land", Real del Monte, Temiscaltepec [*sic*], "Sides of the Cordilleras", and "maritime land"; one other specimen was described as having been purchased in the city of Mexico. Only that of the Slender-billed Grackle was referred to as "the lakes round Mexico", suggesting that the material was *not* just another haphazardly labelled record from Temascaltepec or en route to or from. Remembering that in Mexico, the term "Mexico" frequently refers to the city, Swainson's type locality could easily refer to the lakes and marshes of the Valley of Mexico.

Apart from the type specimen, however, other records exist of Slender-billed Grackles from the Valley of Mexico. Herrera (1891; translation mine), in a report on the vertebrates of the Valley of Mexico, listed the occurrence of Slender-billed Grackles as follows:

In the marshy areas, among mammals, *Arvicola pinetorum*, *A. mexicana*, and *Mustela brasiliensis*; among birds, besides cranes and waterfowl, *Pandion haliaetus* (Fishing Hawk), *Ceryle alcyon*, *Ceryle cabanisi* (kingfisher), *Sayornis nigricans*, *Sturnella magna mexicana*, *Anthus ludovicianus*, *Quiscalus tenuirostris* [= *Q. palustris*], *Melospiza fasciata mexicana*, *Cinclus mexicanus*, *Anthus ludovicianus*, *Cistothorus palustris* . . .

Also, Herrera (1889; translation mine) made the following footnote to a list of the vertebrates of the Valley of Mexico:

New research has confirmed what I have already said about this species being confined to Xochimilco. According to the *Biología* [Salvin and Godman's *Biología Centrali-Americana*], it is not *Quiscalus macrourus* [= *Q. mexicanus*], but *Q. tenuirostris* Sw., or *Scaphidurus palustris* Sw.

The grackles of Xochimilco prefer to feed on corn, which is as abundant there as elsewhere in the valley.

Hence, given reports of the species in the scientific literature and the abundant available habitat, the former occurrence of Slender-billed Grackles in Xochimilco, at the southern end of the Valley of Mexico, seems certain, and the type locality is probably correctly interpreted as referring to the Valley of Mexico.

Since the arrival of Europeans, however, the great lakes of the Valley of Mexico have been severely degraded. Worst of all, between 1609 and the first part of the present century, a series of canals was cut to drain the lakes, and the marsh habitats there have been destroyed completely. This destruction probably led to the species' extinction in the Valley of Mexico prior to the twentieth century, leaving only the Lerma populations extant when Goldman and Brown were collecting. The Lerma populations probably did not last much longer than 1910, as no substantially later records are known.

Acknowledgements

I thank Richard C. Banks for sending a copy of the original description of the species, and Rosa M. Salazar for amiable company during hours of research in the library.

References:

- American Ornithologists' Union. 1983. *Check-list of North American Birds*. 6th edn. American Ornithologists' Union.
- Calderón de la Barca. 1931. *Life in Mexico, During a Residence of Two Years in that Country*. Mexico Press, Mexico
- Dickerman, R. W. 1965. The juvenal plumage and distribution of *Cassidix palustris* (Swainson). *Auk* 82: 268-270.
- Gage, T. 1980. *Viajes en la Nueva España*. Casa de las Américas, La Habana.
- Goldman, E. A. 1951. Biological investigations in Mexico. *Smithsonian Misc. Coll.* 115: 1-476.
- Hardy, J. W. 1967. Evolutionary and ecological relationships between three species of blackbirds (Icteridae) in central Mexico. *Evolution* 21: 196-197.
- Herrera, A. L. Jr. 1889. Notas acerca de los vertebrados del Valle de México. *La Naturaleza*, 2nd ser., 1: 299-342.
- Herrera, A. L. Jr. 1891. El clima del Valle de México y la biología de los vertebrados. *La Naturaleza*, 2nd ser., 2: 38-86.
- Morris, J. B. (ed.) 1928. *Hernando Cortés: Five Letters, 1519-1526*. W. W. Norton Co., Inc., New York.
- Swainson, W. 1827. A synopsis of the birds discovered in Mexico by W. Bullock, F.L.S. and H.S., and Mr. William Bullock, jun. *Philosoph. Mag.*, new ser., 1: 433-442.

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